

RUSSIAN RIVER DRAFT BIOLOGICAL ASSESSMENT

Prepared for:

U.S. ARMY CORPS OF ENGINEERS

San Francisco District
San Francisco, California

and

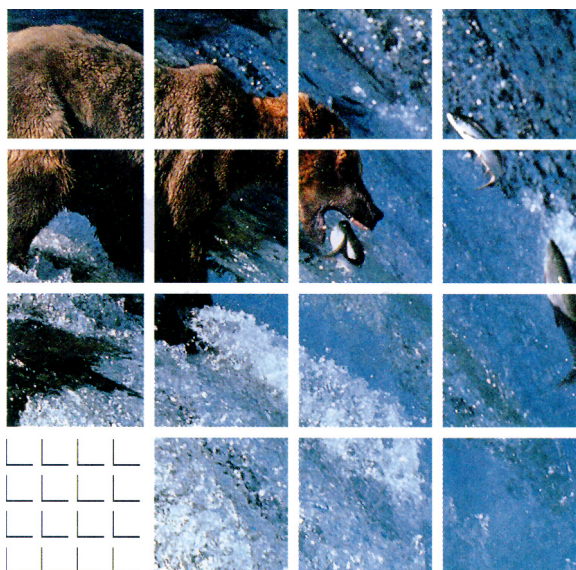
SONOMA COUNTY WATER AGENCY

Santa Rosa, California

Prepared by:

ENTRIX, NC.

Walnut Creek, California



January 16, 2004

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LIST OF ACRONYMS AND ABBREVIATIONS

<i>Term</i>	<i>Definition</i>
A	
ADCP	Acoustic Doppler Current Profiles
ADFG	Alaska Department of Fish and Game
ADWF	average dry weather flow
AF	acre-feet
AFY	acre-feet per year
ARM Plan	Aggregate Resource Management Plan
ASR	aquifer storage and recovery
Avg FPP	average size (fish per pound) at release
AWG	Agency Working Group
B	
BA	Biological Assessment
BASMAA	Bay Area Stormwater Management Agencies Association
BKD	Bacterial Kidney Disease
BML	Bodega Marine Laboratory
BMPs	best management practice(s)
BO	Biological Opinion
BOD	biological oxygen demand
BRA	Benefit Risk Analysis
C	
CCC	Central California Coast
CCF	hundred cubic feet
CCR	California Code of Regulations
CDF	California Department of Forestry and Fire Protection
CDFG	California Department of Fish and Game
CDHS	California Department of Health Services
CDOC	California Department of Conservation

<i>Term</i>	<i>Definition</i>
CDOF	California Department of Finance
CDWR	California Department of Water Resources
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
cfs/hr	cubic feet per second per hour
cm	centimeter(s)
CMRPD	Camp Meeker Recreation and Parks District
cm/s	centimeters per second
CPP	Continuing Planning Process
CPUE	catch per unit effort
CRWQCB	California Regional Water Quality Control Board
CSR	coho salmon replacement rates
CTR	California Toxics Rule
CVDP	Coyote Valley Dam Project
CVFF	Coyote Valley Fish Facility
CWA	Clean Water Act
D	
D1610	SWRCB Decision 1610
DCFH	Don Clausen Fish Hatchery (also known as Warm Springs Fish Hatchery)
DEIS	Draft Environmental Impact Statement
DO	dissolved oxygen
E	
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
El.	elevation
EPA	U.S. Environmental Protection Agency

<i>Term</i>	<i>Definition</i>
ESA	Federal Endangered Species Act of 1973
Estuary	Russian River Estuary
ESU	Evolutionarily Significant Unit
EWSL	Emergency Water Supply Line
F	
FEIS	Final Environmental Impact Statement
FEP	Fisheries Enhancement Program
FERC	Federal Energy Regulatory Commission
FL	fork length
FMEP	Fisheries Management and Evaluation Plan
FMMP	Farmland Mapping & Monitoring Program
FPP	fish per pound
fps	feet per second
FR	Federal Register
ft/hr	feet per hour
ft ³	cubic feet
G	
GIS	Geographical Information System
gpd	gallons per day
gpm	gallons per minute
H	
HGMP	Hatchery and Genetic Management Plan
hp	horsepower
hr	hour(s)
HSA	Hydrologic Service Area
I	
IPM	Integrated Pest Management
IPOTW	Ignacio Publicly Owned Treatment Works

<i>Term</i>	<i>Definition</i>
J	
K	
km	kilometer(s)
km/h	kilometer(s) per hour
KRIS	Klamath Resource Information System
KW	kilowatt(s)
L	
lb	pound
lf	linear feet
LMHPP	Lake Mendocino Hydroelectric Power Plant
M	
m ³ /s	cubic meter(s) per second
M&E Plan	Monitoring and Evaluation Plan
MCIWPC	Mendocino County Inland Water and Power Commission
MCRRFCD	Mendocino County Russian River Flood Control and Water Conservation Improvement District
MG	million gallons
mgd	million gallons per day
mg/l	milligram(s) per liter
mi ²	square miles
min	minute(s)
ml	milliliter
mm	millimeter(s)
MMWD	Marin Municipal Water District
MOU	Memorandum of Understanding
MSC	Merritt Smith Consulting
MSL	mean sea level
MTBE	methyl tertiary-butyl ether
Mt DNA	Mitochondrial DNA

<i>Term</i>	<i>Definition</i>
MW	megawatt(s)
N	
NaOH	sodium hydroxide
NATURES	Natural Rearing Enhancement System
NBWA	North Bay Watershed Association
NCPA	Northern California Power Authority
NCRWQCB	North Coast Regional Water Quality Control Board
NCWAP	North Coast Watershed Assessment Program
NEPA	National Environmental Policy Act
NFP	Natural Flow Proposal
NGVD	National Geodetic Vertical Datum
NMFS	National Marine Fisheries Service, now known as NOAA Fisheries
NMWD	North Marin Water District
NOAA	National Oceanic and Atmospheric Administration
NOAA	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NPOTW	Novato Publicly Owned Treatment Works
NPS	nonpoint source (discharge)
NTU	Nephelometric turbidity unit
O	
OCSD	Occidental County Sanitation District
ODFW	Oregon Department of Fish and Wildlife
O&M manual	operation and maintenance manual
P	
PG&E	Pacific Gas and Electric Company
PIT	Passive Integrated Transponder
PL	Public Law
PMG	Prince Memorial Greenway
PPFC	Public Policy Facilitating Committee

<i>Term</i>	<i>Definition</i>
ppm	parts per million
ppt	parts per thousand
PVID	Potter Valley Irrigation District
PVP	Potter Valley Project
Q	
QPF	Quantitative Precipitation Forecast
R	
RFP	Request for proposal
Rkm	river kilometer
RM	river mile
RMA	Resource Management Associates
RRCWD	Russian River County Water District
RREITF	Russian River Estuary Interagency Task Force
RRSM	Russian River System Model
RRWQM	Russian River Water Quality Model
S	
SAR	smolt-to-adult return
SCWA	Sonoma County Water Agency
SD	Sanitary District
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SL	standard length
SPCC	Spill Prevention, Containment, and Control plans
sq mi	square mile
SRSWRS	Santa Rosa Subregional Wastewater Reclamation System
SVCSD	Sonoma Calley County Sanitation District
SVOC	Semi-volatile organic compounds
SWMP	Storm Water Management Program
SWRCB	State Water Resources Control Board

<i>Term</i>	<i>Definition</i>
T	
TDS	Total dissolved solids
THPs	Timber Harvest Plans
TKN	Total Kjeldahl Nitrogen
TMDL	Total Maximum Daily Load
TRT	Technical Recovery Team
TSS	total suspended solids
U	
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USSCS	U.S. Department of Agriculture Soil Conservation Service (now known as Natural Resources Conservation Service)
V	
VESCO	Vineyard Erosion and Sedimentation Control Ordinance
VOC	volatile organic compounds
VOMWD	Valley of the Moon Water District
W	
WDFW	Washington Department of Fish and Wildlife
WDR	Waste Discharge Requirements
WEP	Water Education Program
WLA	Waste Load Allocation
WQM	Water Quality Monitoring
WSDP	Warm Springs Dam Project
WSE	water surface elevation
WSTSP	Water Supply and Transmission System Project
WWTP	Wastewater Treatment Plant

<i>Term</i>	<i>Definition</i>
	X
	Y
YOY	young of the year
	Z